Econometría II
Quinto semestre Licenciatura en Economía 2016-2020
(Fall 2018)
Dr. Edwin van Gameren

-- Preliminary –

Introduction

Econometrics II continuous where Econometrics I finished. After the general principles of the multiple regression models, extensively discussed in Econometrics I, the current course is focused on regression models applicable in particular situations based on the research questions and on the type of data that is available. In particular, we will see the basics of instrumental variable models, time series models, panel data, and – if time permits – models for qualitative and limited dependent variables.

Classes will focus on the theory, while the accompanying *laboratorios* will focus on the practical estimation and the interpretation of the results.

Bibliography (mandatory)

The course will closely follow the following books:

- Hill, R. Carter, William E. Griffiths, and Guay C. Lim (2012). Principles of Econometrics, 4th Edition, Wiley
- Lee C. Adkins, and Hill, R. Carter (2012). Using Stata for Principles of Econometrics, 4th Edition, Wiley

Bibliography (optional but recommended)

- Wooldridge, Jeffrey M. (2008). Introductory Econometrics: A Modern Approach, 4th Edition, South-Western College Pub.
- Stock, James H. and Mark W., Watson (2010). Introduction to Econometrics, 3rd Edition, Addison-Wesley.
- Gujarati, D.M. (2002). Basic Econometrics, 4th Edition, McGraw Hill.
- Greene, WIlliam H. (2012). Econometric Analysis, 7th edition, Pearson.
- Angrist, Joshua D., and Jörn-Steffen Pischke (2015). Mastering Metrics, Princeton UP.
- Kennedy, Peter (2008). A Guide to Econometrics, 6th Edition. Wiley-Blackwell
- Abbring, Jaap, Peter Boswijk, Philip-Hans Franses (2016). Canon deel 23: econometrie. Economisch-Statistische Berichten, vol. 101, pp. 106-111

Horarios

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- Lunes y Martes, 16:30 – 18:00.
- Salón: *TBD*
- Horario de oficina: con cita. Cubículo 4487. Ext. 4087, email egameren@colmex.mx.
- Laboratorista: Raquel Yunoen Badillo Salas. Horario: *TBD*
- Teaching language will be English, though you may use Spanish, Dutch, or German to communicate with me. I won't reply in German, though.

Evaluación *(tentativa)*

- Participación en clase (5%)
- Tareas (15%). Para la parte empírica de las tareas se usará el paquete Stata.
- Dos exámenes parciales (20% cada uno)
- Examen final (40%)

Program

Recap Chapters 1 – 8

- General principles – linear regression model

Chapter 10 Random Regressors and Moment-Based Estimation

- Measurement error
- Omitted variable bias
- Method of Moments estimator
- Instrumental Variables
- Validity of instruments

Chapter 11 Simultaneous Equations Models

- Exogenous vs endogenous variables
- Identification
- Two-Stage Least Squares
- Reduced vs Structural form models

Chapter 9 Regression with Time-Series Data: Stationary Variables

- recap of Section 1-3 (Distributed Lags, Serial Correlation)
- Tests for Serial Correlation
- Estimation with serial correlation
- Autoregressive Distributed Lag (ARDL) model

- Forecasting
- Multiplier analysis

Chapter 12 Regression with Time-Series Data: Nonstationary Variables
- recap of Chapter 9 (Stationary Variables)
- AR(1) Mpdel
- (Augmented) Dickey-Fuller (ADF) test
- Cointegration

Chapter 13 Vector Error Correction and Vector Autoregressive Models
- VEC (Vector Error Correction) Model
- VAR (Vector Autoregressive) Model

Chapter 15 Panel Data Models
- Pooled Model
- Fixed Effects (FE) Model
- Random Effects (RE) Model

[I WON'T HAVE MUCH TIME FOR THE REMAINING TOPICS AND IT MIGHT EVEN BE LEFT FOR Econometría-3:]

Chapter 16 Qualitative and Limited Dependent Variable Models
- Binary dependent variables
  - Probit, Logit
- Discrete choice variable
  - Multinomial Logit
  - Conditional Logit
  - Ordered Probit
- Count data
- Limited dependent variables
  - Censored data, Tobit model
  - Truncated data